### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133

(707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-016014 Address: 333 Burma Road **Date Inspected:** 02-Aug-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Mr. Xu Le Feng No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** Tower and Orthotropic Box Girder (OBG)

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

### **BAY 10**

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as Tower lift 5 splice plate. The weld designations reviewed are as follows.

NSD1-SPSA5-13-1A/B, 2A/B, 3A/B, 4A/B SSD1-SPSA5-13-1A/B, 2A/B, 3A/B, 4A/B NDT Notification No-06319

### **BAY 10**

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Bike Way. The weld designations reviewed are as follows.

# WELDING INSPECTION REPORT

(Continued Page 2 of 4)

BK004A1-026-009, BK004A1-025-009, BK004A1-029-009,

BK004A1-031-009

NDT Notification No-06324

This QA Inspector observed the following work in progress:

BAY 11: SMAW Process.

This QA Inspector observed ZPMC qualified welding personnel identified as 040656, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as WSD1-SPSA5-7-1B. ZPMC QC Identified as Shao Hai Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 046704, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as ESD1-SPSA5-17-3B, 3A. ZPMC QC Identified as Shao Hai Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 054460, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as WSD1-SPSA5-17-2A. ZPMC QC Identified as Shao Hai Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 046769, 046709 Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Grillage plate, Joint identified as ESD1-TL5-2B-F-25A. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 044541, 044551, Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Grillage plate, Joint identified as ESD1-TL5-2B-F-26A. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 040610, 040611, Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Grillage plate, Joint identified as ESD1-TL5-2B-F-13. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3313-Tc-P4.

This QA Inspector observed ZPMC qualified welding personnel identified as 066258, 037996, 067993, 066674, Perform Shielded Metal Arc Welding (SMAW) on West Tower lift 5 Grillage plate, Joint identified as WSD1-TL5-4E-F-12A, 5B. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

Ultrasonic Testing: OBG Lift 13 Bike Path.

This QA Inspector observed ZPMC Ultrasonic Testing Inspector, performing UT on OBG lift 13 Bike path plate. Plate identified as BK004A1-018-009. For more information see below attached picture number 1.

# WELDING INSPECTION REPORT

(Continued Page 3 of 4)

## BAY 10, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040273, Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 5 Grillage plate. Joint identified as SSD1-TL5-1B-F-14. ZPMC QC Identified as Li Peng Fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U4c.

This QA Inspector observed ZPMC qualified welding personnel identified as 067707, 066443, 066115, 066326, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 5 Grillage plate. Joint identified as NSD1-TL5-3E/F-8A, 5B. ZPMC QC Identified as Fu Wei Min. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 067707, 066443, 066115, 066326, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 5 Grillage plate. Joint identified as NSD1-TL5-3E/F-6, 7. ZPMC QC Identified as Fu Wei Min. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3313-Tc-P5. For more information see below attached picture number 2.

This QA Inspector observed ZPMC qualified welding personnel identified as 066115, 066326, 067707, 066443, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 5 Grillage plate. Joint identified as NSD1-TL5-3E/F-8B, 5A. ZPMC QC Identified as Fu Wei Min. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng Phone: 15921845703, who represents the Office of Structural Materials for your project.

# WELDING INSPECTION REPORT

(Continued Page 4 of 4)

**Inspected By:** Gaikwad,Shailesh Quality Assurance Inspector **Reviewed By:** Clifford, William QA Reviewer